Sheet

PTO/SB/08A (10-01)
Approved for use through 10/31/2002, OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

ork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Complete if Known Substitute for form 1449A/PTO **Application Number** 10/074,102 INFORMATION DISCLOSURE February 12, 2002 Filing Date STATEMENT BY APPLICANT First Named Inventor Hector F. DeLuca Group Art Unit <del>1015 -</del> (use as many sheets as necessary) **Examiner Name** Attorney Docket Number 960296.97206 of 3

				U.S. PATENT DOCU	JMENTS		
Examiner Initials	Cite	U.S. Patent Number	Document Kind Code <sup>2</sup>	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant	
	NO.		(if known)		MM-DD-YYYY	Figures Appear	
745		6,323,228	_	BaMaung, et al.	11/27/01		
		<u> </u>					
						מבעבוו/בה	
						RECEIVED	
	_					NOV 2 6 2002	
						TECH CENTER 1600/2	
						TECH CENTER 1000/2	
		<u> </u>		<u></u>	<u> </u>		
	l	l	1		<u> </u>		

FOREIGN PATENT DOCUMENTS										
		F	oreign Patent Do	cument	Name of Patentee or	Date of Publication of	Pages, Columns, Lines, Where Relevant			
Examiner Initials*	Cite No. <sup>1</sup>	Office <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> (il known)	Applicant of Cited Document	Cited Document MM-DD-YYYY	Passages or Relevant Figures Appear	T <sup>6</sup>		
								_		
		<del>                                     </del>		$\rightarrow$				╁		
		+								
								$\bot$		
								+-		
-		$\vdash$		<del></del>		<del> </del>		+-		
		+ + -						工		
							<u> </u>	⊥.		

, /		
Examiner Signature MARCHULLIN	Date Considered	7/7/04

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Unique citation designation number. 2 See attached Kinds of U.S. Patent Documents. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). \* For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. \*Skind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. \*Applicant is to place a check mark here if English language Translation is attached.

rk Reduction Act of 1995, no persons are required to respon

PTO/SB/08B (10-01)

Approved for use through 10/31/2002, OMB 0651-0031
U. S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE collection of information unless it contains a valid OMB control number.

		^		Co	i		
	ite for form 1449B/PT			Application Number	10/074,102	RECE	/
INF	ORMATIO	N D	ISCLOSURE	Filing Date	February 12, 2002	TIEUE	VED
STATEMENT BY APPLICANT				First Named Inventor	Hector F. DeLuca		
				Group Art Unit	1645 1 L 2l	NOV 26	2002
	(use as many	sheel	s as necessary)	Examiner Name	R. Shame	~	L.,,
Sheet	2	of		Attorney Docket Number	960296.97206	CH CENTED!	 
				• · · · · · · · · · · · · · · · · · · ·		OLL OF MIEW	1600/2900

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the T2 Cite item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. Initials No. Adachi, J. et al. "Indirubin and indigo are potent aryl hydrocarbon receptor ligand present in human urine". J. Biol. Chem. 276(34):31475-31478 (2001). Chen, I., Safe, S., and Bjeldanes, L. "Indole-3-carbinol and diindolylmethane as aryl hydrocarbon (Ah) receptor agonists and antagonists in T47D human breast cancer cells". Biochem. Pharmacol. 51(8):1069-1076 (1996). Chen, Y. H..et al. "Regulation of CYP1A1 by indolo[3,2-b]carbazole in murine hepatoma cells". J. Biol. Chem. 270(38):22548-22555 (1995). Cheung, Y. L., Snelling, J., Mohammed, N. N. D., Gray, T. J. B., and loannides, C. "Interaction with the aromatic hydrocarbon receptor, cyp1a induction, and mutagenicity of a series of diaminotoluenes implications for their carcinogenicity". Toxicol. Appl. Pharmacol. 139(1):203-211 (1996). Garrison, P.M. et al. "Species-specific recombinant cell lines as bioassay systems for the detection of 2,3,7,8-tetrachlorodibenzo-p-dioxin-like chemicals, Fund. Appl. Toxicol. 30:194-203 (1996).Heathpagliuso, S. et al. "Activation of the Ah receptor by tryptophan and tryptophan metabolites". Biochem. 37(33):11508-11515 (1998). Lee, I. J. et al. "Transcriptional induction of the cytochrome p4501a1 gene by a thiazolium compound, yh439". Mol. Pharmacol. 49(6):980-988 (1996). Liu, R. M.et al. "Regulation of [Ah] gene battery enzymes and glutathione levels by 5,10-dihydroindeno[1,2-b]indole in mouse hepatoma cell lines". Carcinogenesis. 15(10):2347-2352. (1994). Poellinger, L. "Mechanistic aspects-the dioxin (aryl hydrocarbon) receptor". Food Add. Contam. 17(4):261-266 (2000). Poland, A. and Glover, E. "Chlorinated dibenzo-p-dioxin: Potent inducers of -aminolevulinic acid synthetase and aryl hydrocarbon hydroxylase. II. A study of the structure-activity relationship". Mol. Pharmacol. 9:736-747 (1973). Rannung, A. et al. "Certain photooxidized derivatives of tryptophan bind with very high affinity to the Ah receptor and are likely to be endogenous signal substances," J. Biol. Chem. 262:15422-15427 (1987).

Examiner Signature Date Considered 7/1/0 9					
	Examiner Signature	Klumn	1	<u>71) /</u>	09

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Not in tile /missing

5333365.1

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Unique citation designation number. 2 Applicant is to place a check mark here if English language Translation is attached.

Examiner

PTO/SB/08B (10-01)
Approved for use through 10/31/2002. OMB 0651-0031
U. S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE shwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary) Sheet 3 of 3

Complete if Known						
Application Number 10/074,102						
Filing Date	February 12, 2002					
First Named Inventor	Hector F, DeLuca					
Group Art Unit	1645 626					
Examiner Name	a. Shemen					
Attorney Docket Number	960296.97206					

OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS								
Examiner Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>					
*		Schaldach, C. M., Riby, J., and Bjeldanes, L. F "Lipoxin A(4): A new class of ligand for the Ah receptor". Biochem. 38(23):7594-7600 (1999).						
		Sinal, C. J. and Bend, J. R. "Aryl hydrocarbon receptor-dependent induction of cyp1a1 by bilirubin in mouse hepatoma hepa 1c1c7 cells". Mol. Pharmacol. 52(4):590-599 (1997)						
		Stephensen, P. U. et al. "N-methoxyindole-3-carbinol is a more efficient inducer of cytochrome P-450 1A1 in cultured cells than indol-3-carbinol". Nutr Cancer Internatl. J. 36(1):112-121 (2000).						
		Vasiliou, V., Shertzer, H. G., Liu, R. M., Sainsbury, M., and Nebert, D. W. "Response of [Ah] battery genes to compounds that protect against menadione toxicity". Biochem. Pharmacol. 50(11):1885-1891 (1995).						
V		Washburn, B. S. et al. "Brevetoxin-6 (pbtx-6), a nonaromatic marine neurotoxin, is a ligand of the aryl hydrocarbon receptor". Arc. Biochem. Biophy. 343(2):149-156 (1997).						
*		Whitlock, J.P., Jr., "Genetic and molecular aspects of 2,3,7,8-tetrachlorodibenzo-p-dioxin action," Ann. Rev. Pharmacol. Toxicol. 30:251-277 (1990).						
		RECEIVED						
		NOV 2 6 2002						
		TECH CENTER 1600/2	900					
			_					

Date Signature Considered \*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not

<sup>1</sup> Unique citation designation number. <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231.

DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Not in tile

5333388.1

considered. Include copy of this form with next communication to applicant.

PTO/SB/08A (10-01)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Palent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

Sheet

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

of 2

Complete if Known **Application Number** 10/074,102 February 2, 2002 Filing Date First Named Inventor Hector F. DeLuca Group Art Unit Examiner Name Attorney Docket Number 960296.97206

1	U.S. PATENT DOCUMENTS									
Examiner initials	Cite No.1		ument nd Code <sup>z</sup> known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Peges, Columns, Lines, Where Relevant Passages or Relevant Figures Appgar				
<u></u>	7									
	7	\	1-1			RECEIVED-				
			┵							
<b> </b>		<del></del>	╁╌╁		<del>- </del>	SEP 1 2 2002				
-	-		1-1							
						ECH CENTER 1600/2900				
			+-+							
			d-1							
			1							
			II							
			-11	<del>\</del>						
<u> </u>			+	<del></del>						
<b> </b>			1							
			1 1	\						

	FOREIGN PATENT DOCUMENTS										
Examiner Initials*	Cite No.1	Foreign Patent Document  Kind Code <sup>2</sup> Office <sup>3</sup> Number <sup>4</sup> (if known)		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	Т6				
								11			
								$\bot$			
								4-4			
		$\vdash$				<del> </del>		╁			
		<del>  -   -</del>			<del></del>	<del> </del> -		+-			
<b> </b> -		╂╌┼╌					<del></del>	+-			
		<del>  -</del>									
						<u> </u>					

Date Examiner Considered Signature EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Oraw life through citation if not in conformance and not

considered. Include copy of this form with next communication to applicant. <sup>1</sup> Unique citation designation number. <sup>2</sup> See attached Kinds of U.S. Patent Documents. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperon must precede the serial number of the patent document. <sup>3</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>4</sup> Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

ร้291049\_1.PDF

## **COPY OF PAPERS** ORIGINALLY FILED

ORIGINALLY FILED

Approved for use through 10/31/2002. OMB 0651-0031

U. S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a confection of information unless it contains a valid OMB control number.

Substit	tute for form 1449B/PT	)	Complete if Known			
			Application Number	10/074,102		
INF	ORMATIO	N DISCLOSURE	Filing Date	February 2, 2002		
STA	ATEMENT I	BY APPLICANT	First Named Inventor	Hector F. DeLuca		
<b>U.</b> 7		J. 711 1 21071111	Group Art Unit	1645		
	(use as many s	heets as necessary)	Examiner Name	G. Shameen		
Sheet	2	of 2	Attorney Docket Number	960296 97206		

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. Initials A. J. Philips, et al., "Synthesis of Functionalized Oxazolines and Oxazoles with DAST and Deoxo-Fluor," Organic Letter 2(8):1165-1168, 2000. R. Susilo, et al., "Formation of Thiazolidine-4-Carboxylic Acid Represents a Main Metabolic Pathway of 5-Hydroxytryptamine in Rat Brain," J. Neurochemistry 52(5):1703 1800 1080 TECH CENTER 1600/2900 Examiner

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Date

Considered

5291049\_1.PDF

Not in like

Signature

<sup>†</sup> Unique citation designation number. 2 Applicant is to place a check mark here if English language Translation is attached.